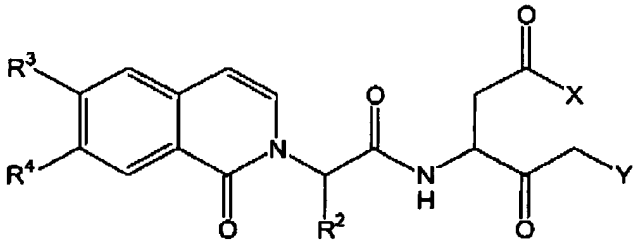
Amendments to the Claims

We claim:

1. (Currently amended) A compound of formula I:



I

wherein:

X is $-OR^1$ or $-N(R^5)_2$,

Y is halo, trifluorophenoxy, or tetrafluorophenoxy;

R^1 is:

C_{1-6} straight chained or branched alkyl, or C_{2-6} straight chained or branched alkenyl, or alkynyl, wherein the alkyl, alkenyl, or alkynyl is optionally substituted with optionally substituted phenyl, CF_3, Cl, F, OMe, OEt, OCF_3, CN, or NMe_2;

C_{3-6} ~~C_{1-6}~~-cycloalkyl, wherein 1-2 carbon atoms in the cycloalkyl is optionally replaced with -O- or $-NR^5-$;

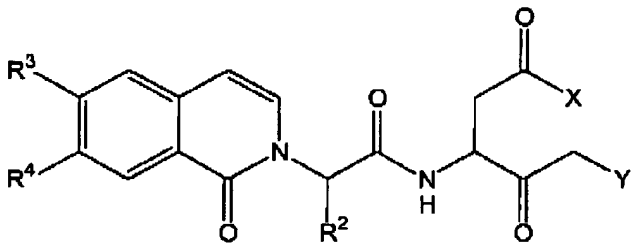
R^2 is C_{1-6} straight chained or branched alkyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3;

R^4 is hydrogen, halo, OCF_3, CN, or CF_3; and

each R^5 is independently H, C_{1-6} straight chained or branched alkyl, aryl, $-O-C_{1-6}$ straight chained or branched alkyl, or -O-aryl.

2. (Currently amended) A compound of formula I:



I

wherein:

X is $-OR^1$ or $-N(R^5)_2$,

Y is halo, trifluorophenoxy, or tetrafluorophenoxy;

R^1 is:

C_{1-6} straight chained or branched alkyl, or C_{2-6} straight chained or branched alkenyl, or alkynyl, wherein the alkyl, alkenyl, or alkynyl is optionally substituted with phenyl or CF_3, or

C_{3-6} ~~C_{1-6}~~ cycloalkyl, wherein 1-2 carbon atoms in the cycloalkyl is optionally replaced with -O- or $-NR^5-$;

R^2 is C_{1-6} straight chained or branched alkyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3;

R^4 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^5 is H, C_{1-6} straight chained or branched alkyl, or $-O-C_{1-6}$ straight chained or branched alkyl; provided that if:

Y is F;

R^2 is isopropyl, R^3 is hydrogen, and R^4 is Cl; or

R^2 is ethyl, R^3 is hydrogen, and R^4 is Cl or CF_3; or

R^2 is ethyl, R^3 is Cl or CF_3, and R^4 is hydrogen; then

R^1 is not t-butyl; and if

Y is 2,3,5,6-tetrafluorophenoxy;

R^2 is ethyl; and

R^3 and R^4 are each hydrogen; or

R^3 is hydrogen and R^4 is Cl or CF_3; or

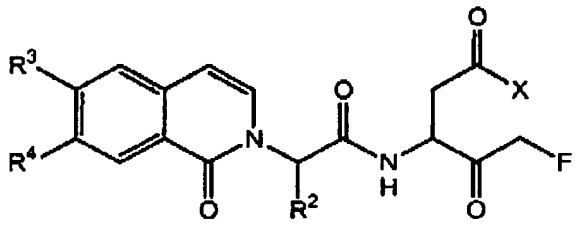
R^3 and R^4 are each Cl; then

R^1 is not t-butyl.

3. (Original) The compound according to claim 1 or claim 2, wherein R^2 is ethyl, n-propyl, or isopropyl.

4. (Currently amended) The compound according to ~~any one of claims 1-3~~claim 1 or claim 2, wherein Y is F, trifluorophenoxy, or tetrafluorophenoxy.

5. (Currently amended) The compound according to ~~claims~~claim 1 ~~or 2~~, having formula IA':

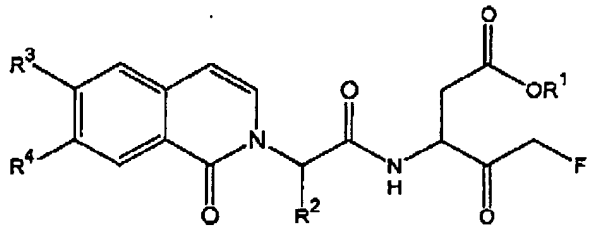


R^2 is ethyl, n-propyl, or isopropyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^4 is hydrogen, halo, OCF_3, CN, or CF_3.

6. (Currently amended) The compound according to ~~claims~~ claim 1 ~~or 2~~, having formula IA:



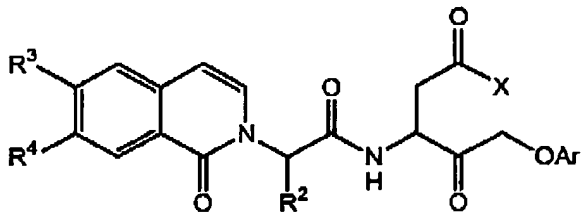
R^1 is C_{1-6} straight chained or branched alkyl optionally substituted with phenyl or CF_3;

R^2 is ethyl, n-propyl, or isopropyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^4 is hydrogen, halo, OCF_3, CN, or CF_3.

7. (Currently amended) The compound according to ~~claims~~claim 1~~ or 2~~, having the formula IB':



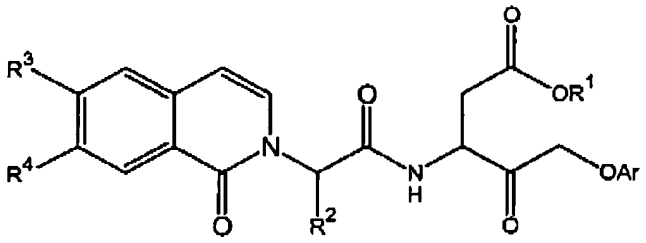
wherein:

R^2 is ethyl, n-propyl, or isopropyl;

R^3 and R^4 are each independently hydrogen, halo, OCF_3, CN, or CF_3; and

Ar is trifluorophenyl or tetrafluorophenyl.

8. (Currently amended) The compound according to ~~claims~~claim 1~~ or 2~~, having the formula IB:



wherein:

R^1 is C_{1-6} straight chained or branched alkyl optionally substituted with phenyl or CF_3;

R^2 is ethyl, n-propyl, or isopropyl;

R^3 and R^4 are each independently hydrogen, halo, OCF_3, CN, or CF_3; and

Ar is trifluorophenyl or tetrafluorophenyl.

9. (Currently amended) The compound according to claim 8, wherein Ar is 2,3,5,6-tetrafluorophenyl.

10. (Currently amended) The compound according to any one of claims ~~1-9~~ 5-9 and 40-44, wherein R^2 is ethyl.

11. (Currently amended) The compound according to any one of claims ~~1-10~~5-9 and 40-44, wherein R^3 is H, and R^4 is F, Cl, or CF_3.

12. (Currently amended) The compound according to any one of claims ~~1-6~~5-6 and 40-41 ~~and 10-11~~ wherein when Y is halo, then R^3 and R^4, are not simultaneously hydrogen.

13. (Currently amended) The compound according to any one of claims ~~1-12~~6, 8, 41, and 43 wherein X is $-OR^1$ and the R^1 is an alkyl group that is not substituted with phenyl or CF_3.

14. (Currently amended) The compound according to ~~any one of claims 1~~ claim 13 wherein X is $-OR^1$ and the R^1 is ethyl or propyl.

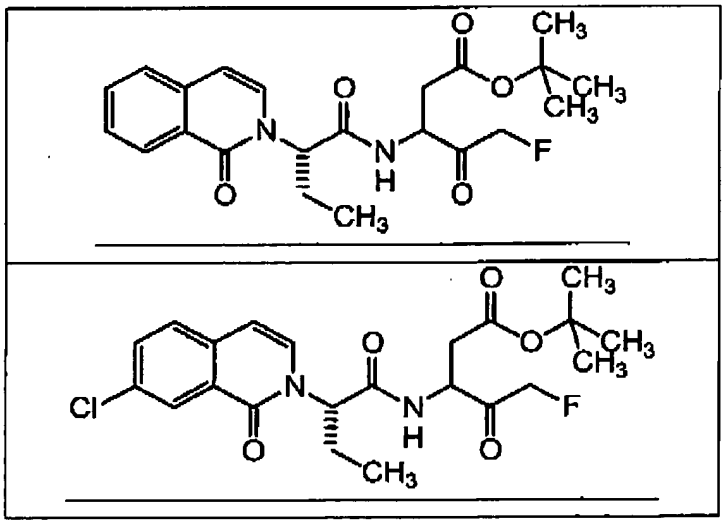
15. (Currently amended) The compound according to any one of claims 5, 7, 40, and 42, ~~1-5, 7, or 10-12~~ wherein X is $-N(R^5)_2$.

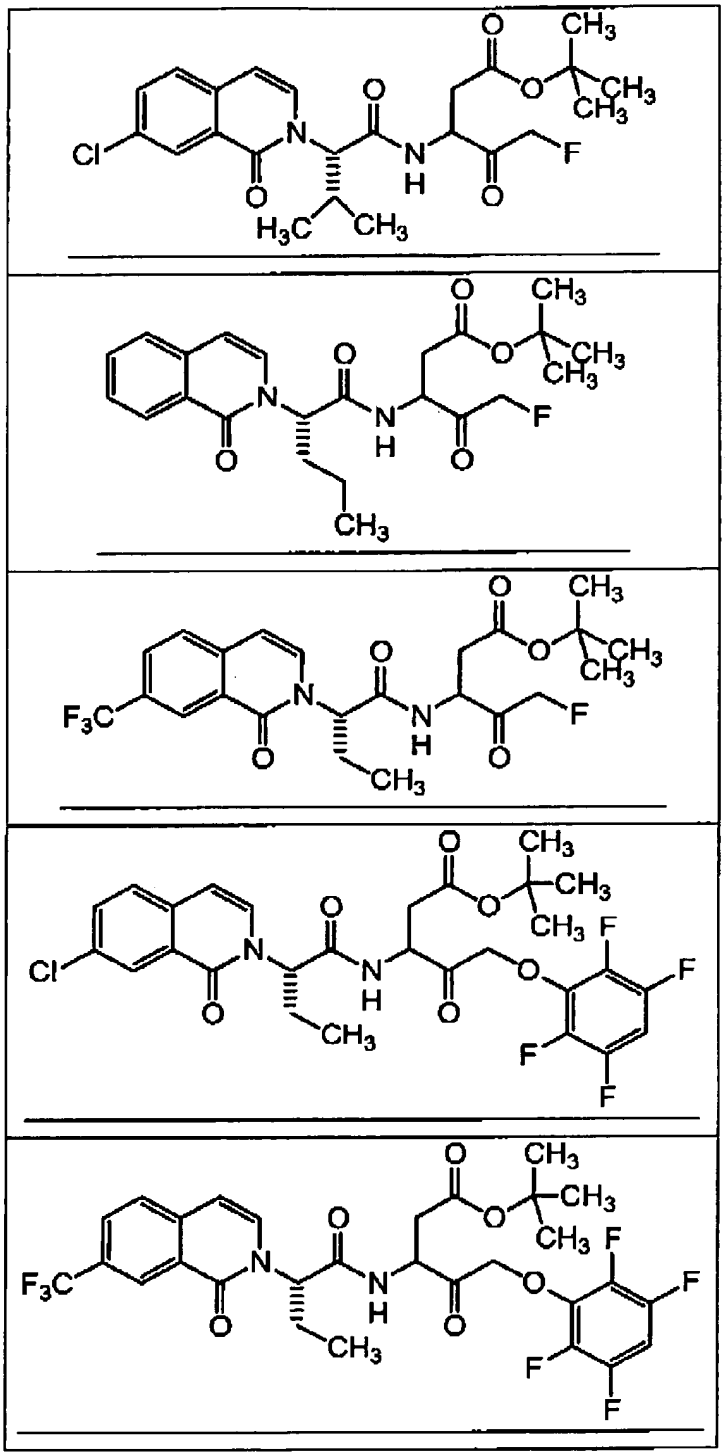
16. (Original) The compound according to claim 15 wherein X is $-N(R^5)_2$ and one R^5 is C_{1-6} straight chained or branched alkyl and the other R^5 is $-O-C_{1-6}$ straight chained or branched alkyl.

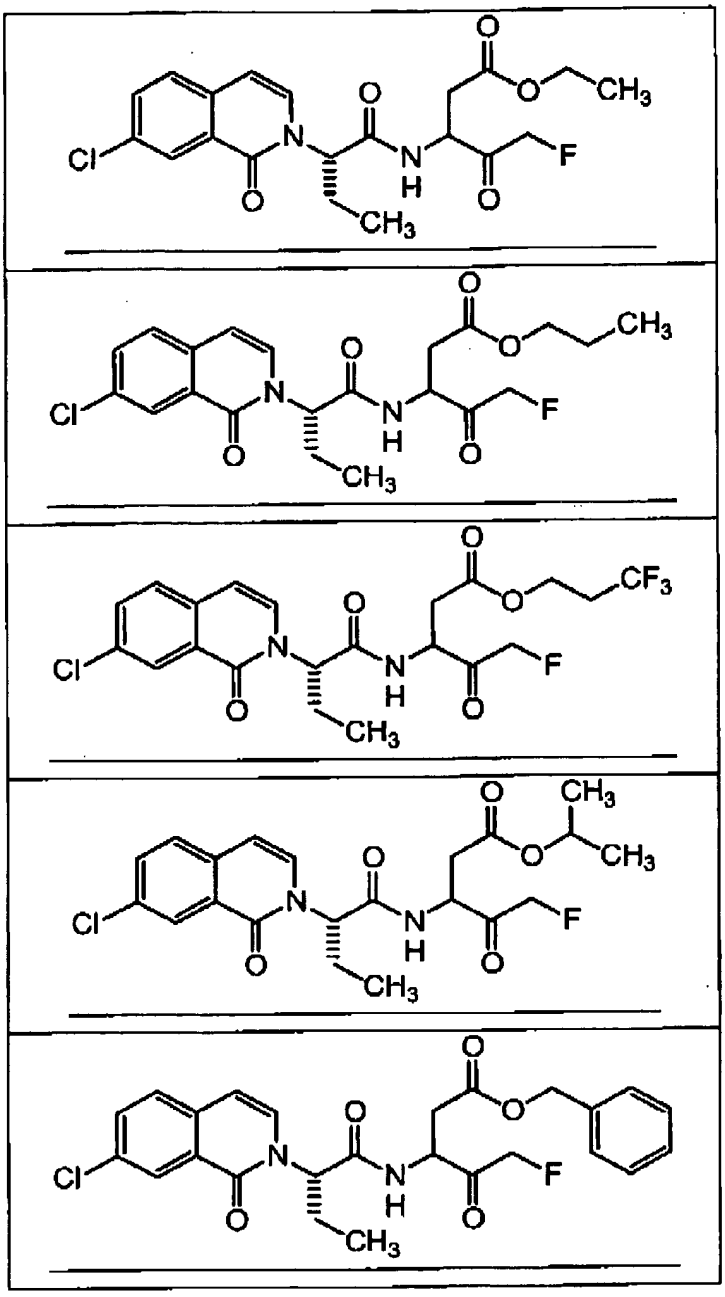
17. (Original) The compound according to claim 15 wherein X is $-N(R^5)_2$ and one R^5 is H or $-C_{1-6}$ straight chained or branched alkyl and the other R^5 is $-C_{1-6}$ straight chained or branched alkyl.

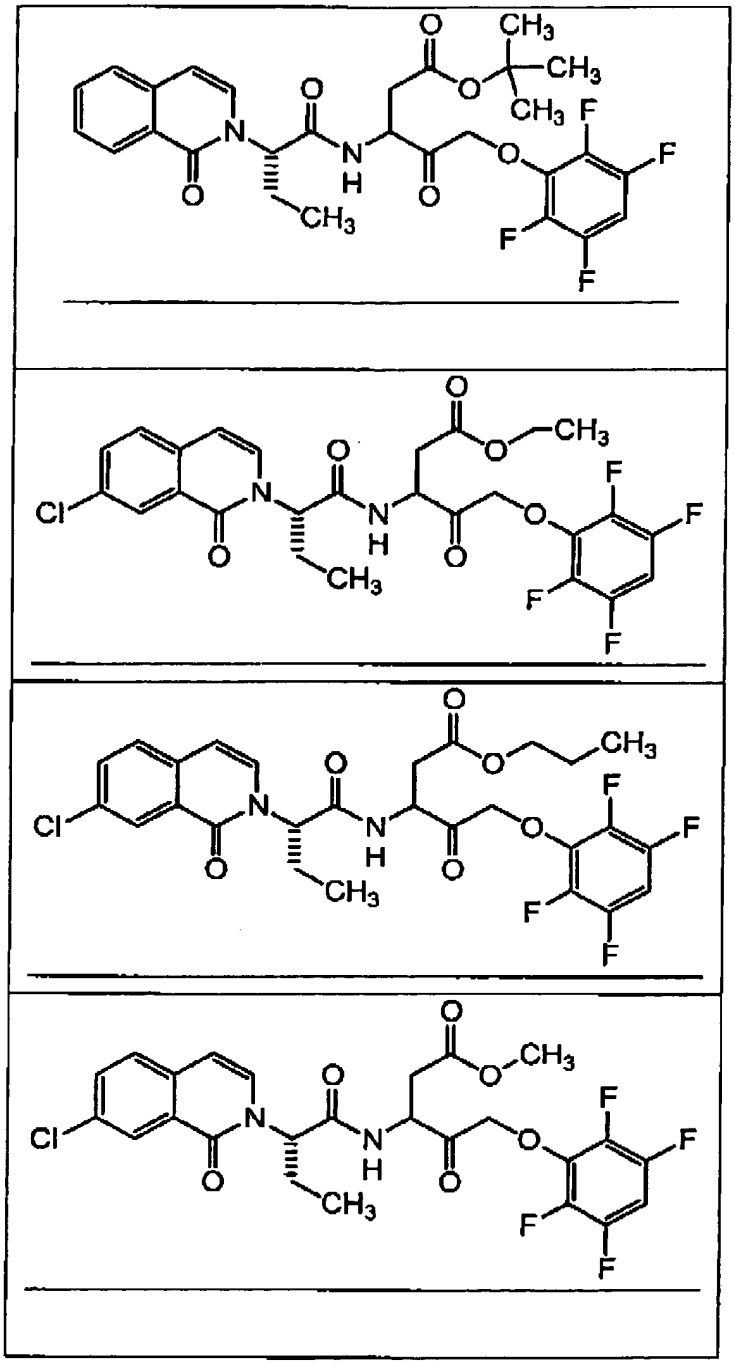
18. (Currently amended) The compound according to ~~any one of claims 15-17~~claim 15, ~~wherein~~ R^5 is methyl, ethyl, or propyl.

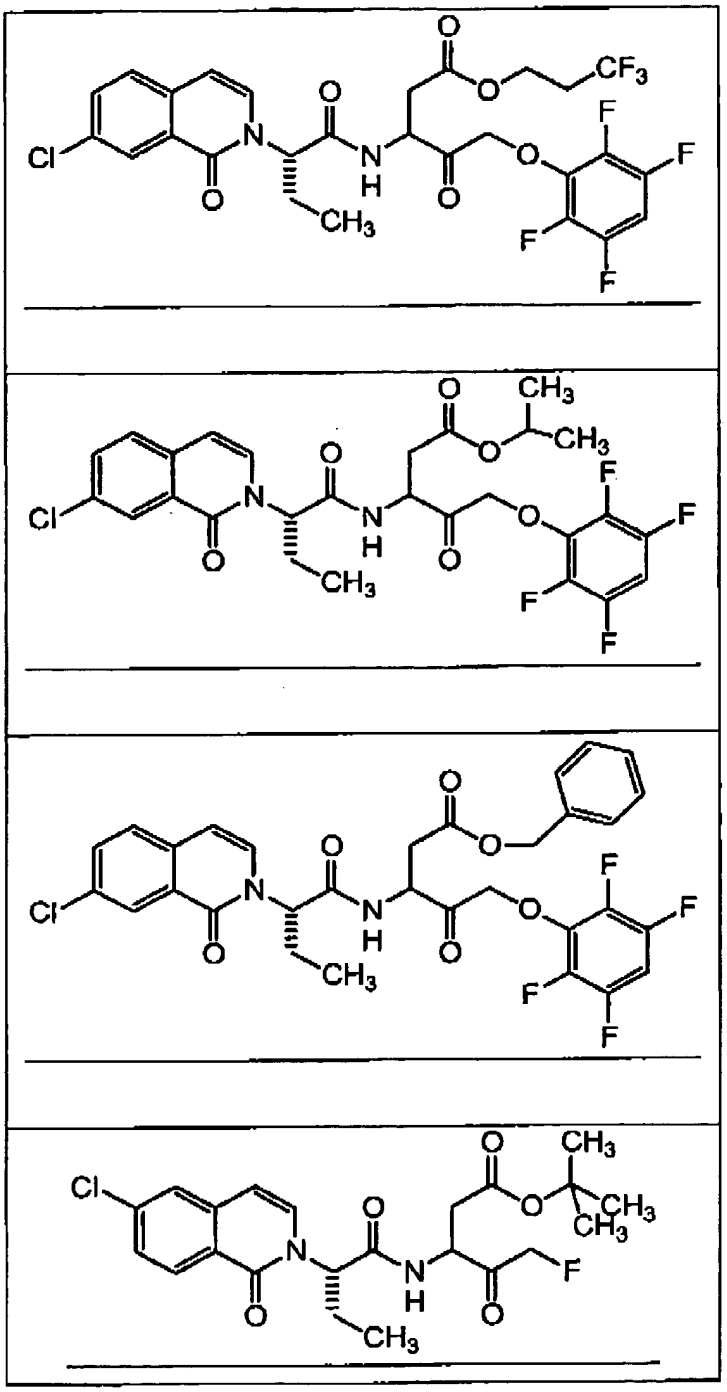
19. (Currently amended) A compound selected from the following ~~Table 1~~compounds:

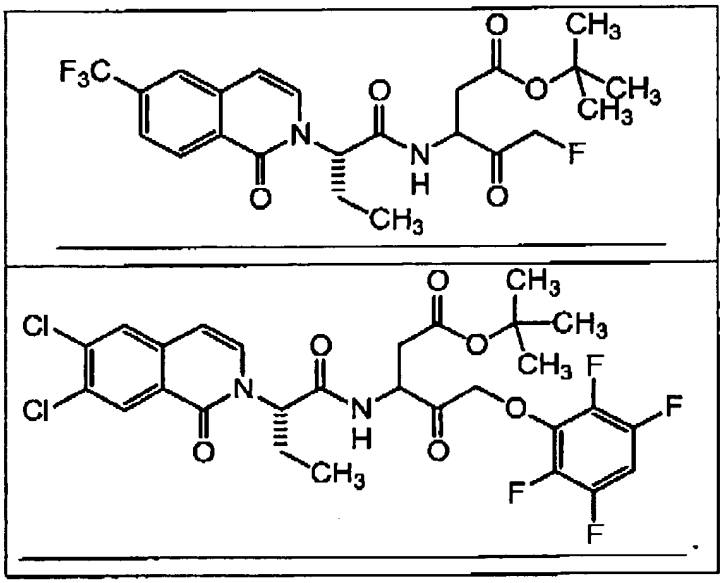












20. (Currently amended) A pharmaceutical composition comprising:

a) a compound according to claim 1 or claim 2~~any one of claims 1 19~~; and

b) a pharmaceutically acceptable carrier, adjuvant or vehicle.

21. (Canceled)

22. (Withdrawn-currently amended) A method for treating a disease in a patient, wherein said disease is an IL-1 mediated disease, an apoptosis mediated disease, an inflammatory disease, an autoimmune disease, a destructive bone disorder, a proliferative disorder, an infectious disease, a degenerative disease, a disease associated with cell death, an excess dietary alcohol intake disease, a viral mediated disease, retinal

disorders, uveitis, inflammatory peritonitis, osteoarthritis, pancreatitis, asthma, adult respiratory distress syndrome, glomerulonephritis, rheumatoid arthritis, systemic lupus erythematosus, scleroderma, chronic thyroiditis, Grave's disease, autoimmune gastritis, diabetes, autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, chronic active hepatitis, myasthenia gravis, inflammatory bowel disease, Crohn's disease, psoriasis, atopic dermatitis, scarring, graft vs host disease, organ transplant rejection, organ apoptosis after burn injury, osteoporosis, leukemias and related disorders, myelodysplastic syndrome, multiple myeloma-related bone disorder, acute myelogenous leukemia, chronic myelogenous leukemia, metastatic melanoma, Kaposi's sarcoma, multiple myeloma, hemorrhagic shock, sepsis, septic shock, burns, Shigellosis, Alzheimer's disease, Parkinson's disease, Huntington's disease, Kennedy's disease, prion disease, cerebral ischemia, epilepsy, myocardial ischemia, acute and chronic heart disease, myocardial infarction, congestive heart failure, atherosclerosis, coronary artery bypass graft, spinal muscular atrophy, amyotrophic lateral sclerosis, multiple sclerosis, HIV-related encephalitis, aging, alopecia, neurological damage due to stroke, ulcerative colitis, traumatic brain injury, spinal cord injury, hepatitis-B, hepatitis-C, hepatitis-G, yellow fever, dengue fever, Japanese encephalitis, various forms of liver disease, renal disease, polycystic kidney disease, H. pylori-associated gastric and duodenal ulcer disease, HIV infection, tuberculosis, or meningitis;

said method comprising the step of administering to said patient compound according to ~~any one of claims 1-19~~claim 1

or claim 2 or a pharmaceutical composition according to ~~any one of claims 20-21~~claim 20.

23. (Withdrawn) The method according to claim 22, wherein the disease is an apoptosis mediated disease, an inflammatory disease, an autoimmune disease, a destructive bone disorder, a proliferative disorder, an infectious disease, a degenerative disease, a disease associated with cell death, an excess dietary alcohol intake disease, a viral mediated disease, inflammatory peritonitis, glomerulonephritis, diabetes, autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, chronic active hepatitis, scarring, graft vs host disease, organ transplant rejection, organ apoptosis after burn injury, osteoporosis, leukemias and related disorders, myelodysplastic syndrome, metastatic melanoma, hemorrhagic shock, sepsis, septic shock, burns, Shigellosis, Alzheimer's disease, Parkinson's disease, Huntington's disease, Kennedy's disease, prion disease, cerebral ischemia, epilepsy, myocardial ischemia, acute and chronic heart disease, myocardial infarction, congestive heart failure, atherosclerosis, coronary artery bypass graft, spinal muscular atrophy, amyotrophic lateral sclerosis, multiple sclerosis, HIV-related encephalitis, aging, alopecia, neurological damage due to stroke, traumatic brain injury, spinal chord injury, hepatitis-B, hepatitis-C, hepatitis-G, various forms of liver disease, renal disease, polycystic kidney disease, H. pylori-associated gastric and duodenal ulcer disease, HIV infection, tuberculosis, and meningitis.

24. (Withdrawn) The method according to claim 22, wherein the disease is neurological damage due to stroke, traumatic brain injury, spinal cord injury, Alzheimer's disease, Parkinson's disease, Huntington's disease, multiple sclerosis, or cerebral ischemia.

25. (Withdrawn) The method according to claim 22, wherein the disease is osteoarthritis, pancreatitis, asthma, adult respiratory distress syndrome, glomerulonephritis, rheumatoid arthritis, systemic lupus erythematosus, scleroderma, chronic thyroiditis, Grave's disease, autoimmune gastritis, insulin-dependent diabetes mellitus (Type I), autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, chronic active hepatitis, myasthenia gravis, inflammatory bowel disease, Crohn's disease, psoriasis, graft vs host disease, osteoporosis, multiple myeloma-related bone disorder, acute myelogenous leukemia, chronic myelogenous leukemia, metastatic melanoma, Kaposi's sarcoma, multiple myeloma, sepsis, septic shock, Shigellosis, cerebral ischemia, myocardial ischemia, spinal muscular atrophy, or neurological damage due to stroke.

26. (Withdrawn) The method according to claim 22, wherein the disease is an IL-1 mediated disease, an apoptosis mediated disease, an inflammatory disease, an autoimmune disease, a destructive bone disorder, a proliferative disorder, an infectious disease, a degenerative disease, a disease associated with cell death, an excess dietary alcohol intake disease, inflammatory peritonitis, osteoarthritis, pancreatitis, adult respiratory distress syndrome, rheumatoid arthritis, chronic active hepatitis, inflammatory bowel disease, Crohn's

disease, psoriasis, atopic dermatitis, organ apoptosis after burn injury, hemorrhagic shock, sepsis, septic shock, burns, Alzheimer's disease, Parkinson's disease, Huntington's disease, cerebral ischemia, myocardial ischemia, acute and chronic heart disease, myocardial infarction, congestive heart failure, coronary artery bypass graft, amyotrophic lateral sclerosis, multiple sclerosis, alopecia, neurological damage due to stroke, ulcerative colitis, traumatic brain injury, spinal cord injury, hepatitis-B, hepatitis-C, hepatitis-G, various forms of liver disease, or renal disease.

27. (Withdrawn) The method according to claim 22, wherein said disease is a complication associated with a coronary artery bypass graft.

28. (Withdrawn-currently amended) A method for inhibiting a caspase-mediated function in a patient comprising the step of administering to said patient a compound according to ~~any one of claims 1-19~~claim 1 or claim 2 or a pharmaceutical composition according to ~~any one of claims 20-21~~claim 20.

29. (Withdrawn) The method according to claim 28, wherein the function occurs in the central nervous system.

30. (Withdrawn) The method according to claim 28, for decreasing IGIF or IFN-γ production in a patient.

31. (Withdrawn) The method according to claim 30, wherein the IGIF or IFN-γ production is in the central nervous system.

32. (Withdrawn-currently amended) The method according to ~~any one of claims 22-31~~claim 22, wherein said composition comprises an additional therapeutic agent.

33. (Withdrawn-currently amended) A method of preserving cells, said method comprising the step of bathing the cells in a solution of the compound according to ~~any one of claims 1-19~~claim 1 or claim 2, or a pharmaceutically acceptable derivative thereof.

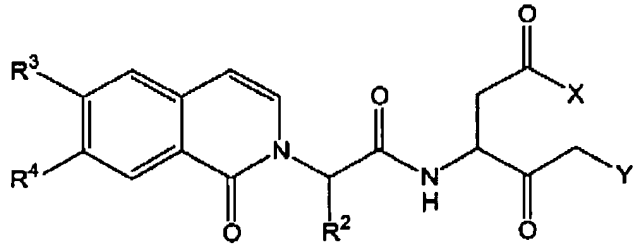
34. (Withdrawn) The method according to claim 33, wherein said cells are in:

a) an organ intended for transplant; or

b) a blood product.

35. (Withdrawn-currently amended) A method of treating cancer using immunotherapy, wherein said immunotherapy comprises as a component thereof a compound according to ~~any one of claims 1-19~~claim 1 or claim 2.

36. (Currently amended) A process for preparing a compound of formula I:



I

wherein:

X is $-OR^1$ or $-N(R^5)_2$,

Y is halo, trifluorophenoxy, or tetrafluorophenoxy;

R^1 is:

C_{1-6} straight chained or branched alkyl, or C_{2-6} straight chained or branched alkenyl, or alkynyl, wherein the alkyl, alkenyl, or alkynyl is optionally substituted with optionally substituted phenyl, CF_3, Cl, F, OMe, OEt, OCF_3, CN, or NMe_2;

C_{3-6} ~~C_{1-6}~~-cycloalkyl, wherein 1-2 carbon atoms in the cycloalkyl is optionally replaced with -O- or $-NR^5-$;

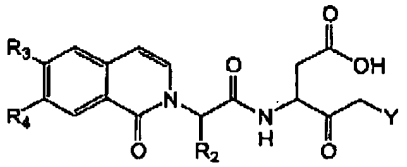
R^2 is C_{1-6} straight chained or branched alkyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3;

R^4 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^5 is H, C_{1-6} straight chained or branched alkyl, aryl, $-O-C_{1-6}$ straight chained or branched alkyl, or -O-aryl;

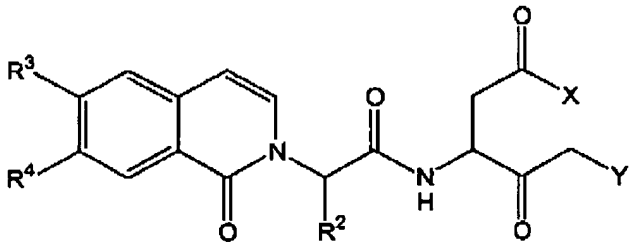
comprising the step of reacting a compound of formula I':



I'

wherein X, Y, R^2, R^3, and R^4 are as defined for formula I; under conditions forming an ester or amide bond to provide a compound of formula I.

37. (Currently amended) A process for preparing a compound of formula I:



I

wherein:

X is $-OR^1$ or $-N(R^5)_2$,

Y is halo, trifluorophenoxy, or tetrafluorophenoxy;

R^1 is:

C_{1-6} straight chained or branched alkyl, or C_{2-6} straight chained or branched alkenyl, or alkynyl, wherein the alkyl, alkenyl, or alkynyl is optionally substituted with optionally substituted phenyl, CF_3, Cl, F, OMe, OEt, OCF_3, CN, or NMe_2;

C_{3-6} ~~C_{1-6}~~-cycloalkyl, wherein 1-2 carbon atoms in the cycloalkyl is optionally replaced with -O- or $-NR^5-$;

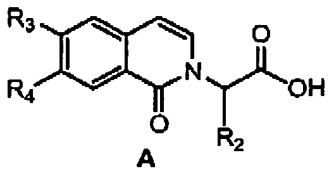
R^2 is C_{1-6} straight chained or branched alkyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3;

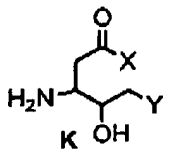
R^4 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^5 is H, C_{1-6} straight chained or branched alkyl, aryl, -O-C_{1-6} straight chained or branched alkyl, or -O-aryl;

comprising the step of coupling a compound of formula A and a compound of formula K:

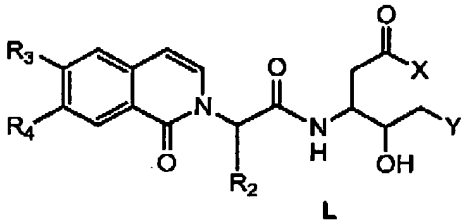


A



K

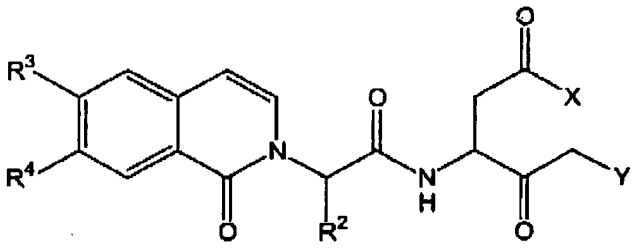
to provide a compound of formula L:



L

wherein X, Y, R^1, R^2, R^3, and R^4 are as defined in formula I and wherein the hydroxy group in K is optionally protected.

38. (Currently amended) A process for preparing a compound of formula I:



I

wherein:

X is $-OR^1$ or $-N(R^5)_2$,

Y is halo, trifluorophenoxy, or tetrafluorophenoxy;

R^1 is:

C_{1-6} straight chained or branched alkyl, or C_{2-6} straight chained or branched alkenyl, or alkynyl, wherein the alkyl, alkenyl, or alkynyl is optionally substituted with optionally substituted phenyl, CF_3, Cl, F, OMe, OEt, OCF_3, CN, or NMe_2;

C_{3-6} ~~C_{1-6}~~-cycloalkyl, wherein 1-2 carbon atoms in the cycloalkyl is optionally replaced with -O- or $-NR^5-$;

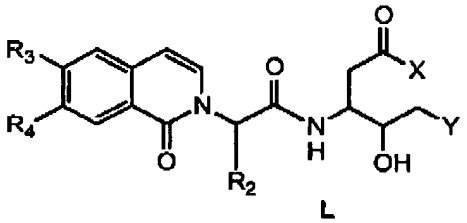
R^2 is C_{1-6} straight chained or branched alkyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3;

R^4 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^5 is H, C_{1-6} straight chained or branched alkyl, aryl, $-O-C_{1-6}$ straight chained or branched alkyl, or -O-aryl;

comprising the step of oxidizing a compound of formula L:

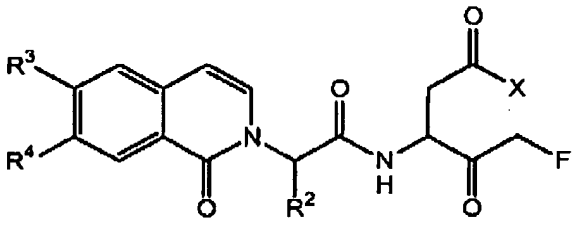


L

wherein X, Y, R^1, R^2, R^3, and R^4 are as defined for formula I; to provide a compound of formula I.

39. (Original) The compound according to claim 9, wherein R^2 is ethyl.

40. (New) The compound according to claim 2, having formula IA':

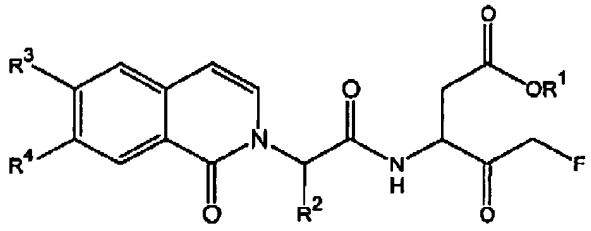


R^2 is ethyl, n-propyl, or isopropyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^4 is hydrogen, halo, OCF_3, CN, or CF_3.

41. (New) The compound according to claim 2, having formula IA:



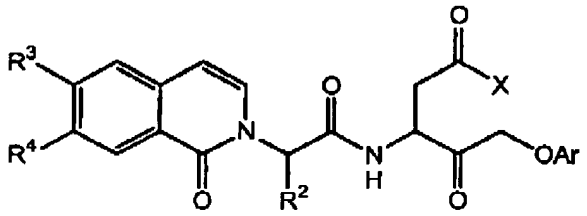
R^1 is C_{1-6} straight chained or branched alkyl optionally substituted with phenyl or CF_3;

R^2 is ethyl, n-propyl, or isopropyl;

R^3 is hydrogen, halo, OCF_3, CN, or CF_3; and

R^4 is hydrogen, halo, OCF_3, CN, or CF_3.

42. (New) The compound according to claim 2, having the formula IB':



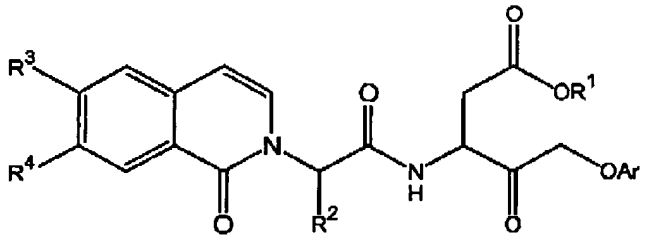
wherein:

R^2 is ethyl, n-propyl, or isopropyl;

R^3 and R^4 are each independently hydrogen, halo, OCF_3, CN, or CF_3; and

Ar is trifluorophenyl or tetrafluorophenyl.

43. (New) The compound according to claim 2, having the formula IB:



wherein:

R^1 is C_{1-6} straight chained or branched alkyl optionally substituted with phenyl or CF_3;

R^2 is ethyl, n-propyl, or isopropyl;

R^3 and R^4 are each independently hydrogen, halo, OCF_3, CN, or CF_3; and

Ar is trifluorophenyl or tetrafluorophenyl.

44. (New) The compound according to claim 43, wherein Ar is 2,3,5,6-tetrafluorophenyl.

45. (New) The compound according to any one of claims 40-43, wherein R^2 is ethyl.

46. (New) The compound according to any one of claims 40-43, wherein R^3 is H, and R^4 is F, Cl, or CF_3.

47. (New) The compound according to claim 45 wherein when Y is halo, then R^3 and R^4, are not simultaneously hydrogen.

48. (New) The compound according to claim 46 wherein when Y is halo, then R^3 and R^4, are not simultaneously hydrogen.

49. (New) The compound according to claim 17, wherein the C_{1-6} straight chained or branched alkyl is methyl, ethyl, or propyl.